

ON A NEW SPECIES OF *SPATHIUS* NEES (HYMENOPTERA : BRACONIDAE) FROM INDIA¹S.M. KURHADE² AND P.K. NIKAM³

(With three text-figures)

Spathius deccanensis sp. nov. is described and illustrated.

INTRODUCTION

Spathius is a moderate sized genus of the subfamily Spathiinae. Nees (1818) erected this genus with the type species, *Cryptus clavatus* Panzer. Other species reported are *Stenophasmus ruficeps* Smith (1859), *Euspathius* Foerster (1862) and *Rhacospathius striolatus* Cameron (1905).

Spathius comprises about 291 species distributed world wide, from which 204 species are recorded from Indo-Australian and Pacific region and 17 species are known from India (Shenefelt and Marsh 1976). *Spathius* has been divided into 55 species groups by Nixon (1943). The taxa studied here belongs to the *vulnificus* group.

The earlier works on *Spathius* in Indo-australian region are by Motschoulsky (1863), Westwood (1882), Szepligeti (1905, 1908), Cameron (1908, 1910), Enderlein (1912), Brues (1918), Wilkinson (1931), Nixon (1939, 1943), Krishna Ayyar and Narayanswami (1940) and Granger (1949).

In this study the key to the species of the *vulnificus* group of *Spathius* of the old world by Nixon (1943) is followed and the new species, *Spathius deccanensis* described from India in Indo-Australian region is included in the key.

Types and other material of the species are in the collection of the junior author for the time being and will be deposited in the National Collection of the Zoological Survey of India, Calcutta, India in due course.

***Spathius deccanensis* sp. nov.**

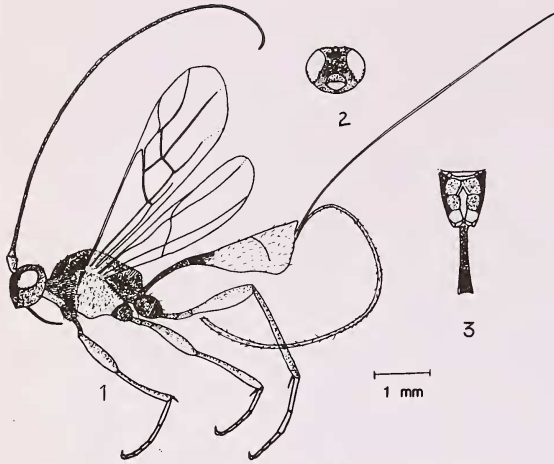
FEMALE: 4.9 mm. in length (Fig. 1). Head (Fig.

2): 0.7 times the own width; vertex smooth, moderately, shallowly punctate, pubescent; interocellar distance 0.42 times the ocellocular distance; frons transversely striate; face 0.55 times the own width, transversely strigose, moderately punctate, pubescent; clypeus narrow, 0.25 times the own width; malar space as long as basal width of mandible, smooth, weakly punctate, pubescent; mandible 2 x as long as its basal width, bidentate, overlapping; temple 0.45 times the length of eye, smooth, subpolished, very weakly, shallowly punctate, pubescent; maxillary palp 5 segmented.

Antenna: 2 + 47 segmented; scape 2 x as long as wide, shorter than first flagellar segment; pedicel 1.25 x as long as wide; post pedicel 8 x as long as wide; penultimate segment 4 x as long as wide; terminal segment 6 x as long as wide.

Thorax: Pronotum strigose; mesonotum coriaceous; middle lobe of mesoscutum transversely strigose, pubescent; lateral lobes of mesoscutum rugoso-reticulate, pubescent; notauli distinct; prescutellar depression with five transverse carinae; scutellum shiny, smooth; mesopleurum smooth, shiny, very weakly, shallowly punctate, anterior corner with transverse carinae, pubescent; prepectal carina distinct, transversely carinated; mesopleural fovea prominent; speculum smooth, shiny; metapleurum rugoso-reticulate; propodeum (Fig. 3) areolated; areola quadrangular, 1.42 x as long as wide, with four transverse carinae; first and second pleural areas transversely carinated; first and second lateral areas smooth, shiny, pubescent; propodeal spiracle small, rounded. Hind coxa : 1.65 x as long as wide, transversely striate, with long pubescence; trochanters I + II 4.2 x as long as wide; femur 4 x as long as wide; tibia 1.5 x as long as femur, 13.4 x as long as wide apically; long tibial spur 0.25 times the basitarsus; basitarsus 0.6 times the femur; tarsus 5 segmented; claw simple, bifid.

¹ Accepted August 1994.² Post-graduate Dept. of Zoology, New Arts, Commerce and Science College, Ahmednagar 414 001 (Maharashtra), India.³ Department of Zoology, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad 431 004 (Maharashtra), India.



Figs. 1-3. *Spathius deccanensis* sp. nov. female
 1. Adult, Lateral view; 2. Head, viewed from front;
 3. Propodeum with first abdominal tergite.

Fore wings: 3.85 x as long as broad; stigma 6 x as long as wide; costa 2.8 x as long as stigma; first abscissa of radius as long as width of stigma; second abscissa of radius 3.4 x as long as first abscissa; third abscissa of radius 6.6 x as long as first abscissa 1.9 x as long as second abscissa; first intercubitus 2 x as long as basal; nervulus vertical, opposite, 0.8 times the width of stigma; submedius as long as medius; subdiscoideus 1.5 x as long as stigma.

Hind wings: 5.4 x as long as broad; mediella 3.75 x as long as basella; cubitella as long as mediella; nervulus reclivous, basad, 0.5 times the basella; post nervulus opposite.

Abdomen: 3.6 x as long as wide, petiolate, spindle shaped; first tergite strongly petiolate, 7.85 x as long as wide, rugose, closely punctate, with long pubescence, striate apically, two mid-dorsal longitudinal carinae present on apical 0.3 region; second tergite as long as wide apically, smooth, polished, pubescent; third tergite 0.6 times the apical width, smooth, polished, pubescent; remaining tergites smooth, polished, pubescent; ovipositor very long, 3.9 x as long as hind basitarsus; ovipositor sheath as long as ovipositor, longer than abdomen, pubescent throughout the length.

Coloration: Reddish-brown. Head, antenna, legs yellowish red; propodeum, tips of mandibles black; stigma, veins, ovipositor sheath brownish-black; mesopleurum brown.

MALE: Unknown.

Holotype: Female, INDIA; Maharashtra: Ahmednagar, 10. ix. 1989 on wing, S.M. Kurhade coll.; Regd. No. Br sp¹/MUZ/SMK1; Antenna, wings and legs mounted on slides and labelled as above.

Paratypes: 17 females, data same as holotype, except 5 females 7. x. 1989.

Comments: In accordance to the key to the species of the *vulnificus* group (Nixon 1943) of the genus *Spathius*, the new species, *Spathius deccanensis* is close to *Spathius vulnificus* (Wilkinson 1931) and resembles it in having : (i) reddish-brown body, (ii) coriaceous mesonotum, (iii) distinct notauli and (iv) propodeum areolated, with four transverse carinae. However, the new taxa differs from the same in having : (i) transversely striated frons, (ii) vertex smooth, (iii) malar space smooth, (iv) flagellum 47 segmented, (v) scape shorter than first flagellar segment, (vi) mesopleurum smooth, (vii) first tergite rugose, (viii) tergites 2 and 3 smooth, polished and (ix) ovipositor sheath longer than abdomen.

The new species also superficially resembles *Spathius sul* (Nixon 1943), but differs from the same in having: (i) reddish-brown body, (ii) face transversely strigose, (iii) frons transversely striate, (iv) mesopleurum smooth, shiny, very weakly, shallowly punctate and (v) tergites 2 and 3 smooth, polished.

A KEY TO THE SPECIES OF *vulnificus* GROUP FEMALES OF *Spathius* BY NIXON (1943)

- 1. Wings vestigial. Yellowish-brown species with the abdomen except tergites 2 and 3 which are pale in part, blackish; tergites 2 and 3 except for the narrow apical margin, finely longitudinally striate *critolaus* Nixon (1939)
- Wings fully developed 2
- 2. Tergites 2 and 3 dull, extremely closely reticulate, appearing finely rugulose, almost shargreened species with tergites 2 and 3 having the basal half entirely yellow and a yellowish spot on each side of apical half *sul* Nixon (1943)
- Tergites 2 and 3 differently sculptured 3
- 3. Tergites 2 and 3 smooth, without a yellowish semicircular area at base *deccanensis* sp. nov.

- Tergites 2 and 3 yellowish at base 4
4. Tergites 2 and 3 with yellowish semicircular area at the base, finely, obliquely aciculate; beyond this area almost smooth; 2nd abscissa of the radius of the forewing only slightly more than half the length of the 3rd; ovipositor longer
.....*vulnificus* Wilkinson (1931)
- Tergites 2 and 3 yellowish at base but without this colour being restricted to a semicircular area in greater part, finely longitudinally striated; 2nd abscissa of radius about 2/3 of the length of the 3rd; ovipositor shorter
.....*critolaus* Nixon (1939)

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